

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

IPA TECHNOLOGIES, INC.,)	
)	
Plaintiff,)	
)	The Honorable
v.)	Richard G. Andrews
)	
AMAZON.COM, INC. and AMAZON DIGITAL SERVICES, LLC,)	Civil Action No. 1:16-CV-01266-RGA
)	
Defendants.)	JURY TRIAL DEMANDED
)	

**OPENING BRIEF IN SUPPORT OF MOTION TO DISMISS
PURSUANT TO FEDERAL RULE OF CIVIL PROCEDURE 12(b)(6)
OF DEFENDANTS AMAZON.COM, INC. AND AMAZON DIGITAL SERVICES, LLC.**

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NATURE AND STAGE OF THE PROCEEDINGS

This is a patent case. IPA Technologies Inc. (“IPA”) filed its complaint on December 19, 2016. In it, IPA asserts three related United States patents—No. 6,742,021 (“the ’021 patent”), No. 6,523,061 (“the ’061 patent”), and No. 6,757,718 (“the ’718 patent”). (D.I. 1.) The asserted patents, however, claim patent-ineligible subject matter under 35 U.S.C. § 101 and are thus invalid. Accordingly, defendants Amazon.com, Inc. and Amazon Digital Services, LLC (collectively “Amazon”) request that the Court dismiss this action under Federal Rule of Civil Procedure 12(b)(6) for failure to state a claim upon which relief can be granted.

INTRODUCTION

Since the earliest days of the computer era, scientists have strived to create a system that can understand and respond to the spoken word. Indeed, over 60 years ago Alan Turing, a pioneer of computer science, stated that this very ability was the test of true artificial intelligence. Generations of computer scientists and technology companies have attempted to solve this problem, devoting countless hours of research and significant resources to the endeavor. Those investments have begun to pay off. In the last few years, through intense research, investment, and the advent of cloud computing, the world’s leading technology companies have made huge strides toward this elusive goal. Building on decades of research, they have finally succeeded in creating systems that can understand and act on a wide range of spoken requests. Now, millions of people every day get information, services, and entertainment just by asking Amazon’s Alexa (or Apple’s Siri, Microsoft’s Cortana, or Google’s Google Voice).

IPA’s patents claim this very result without contributing any actual technology for achieving it. Each claim requires “receiving a spoken request” and “rendering an interpretation of the spoken request” to respond to it. But none of the claims provides a specific technical solution for achieving this goal. By claiming a result rather than a specific means of achieving it, IPA’s patent claims attempt to cover not only decades of groundbreaking research by true inno-

vators but also the solutions to be yet devised by others. The hard work of true invention, to say nothing of a decent respect for the innovating public, demands a far greater contribution to the public store of knowledge before our patent laws remove such vast swaths of technology—both present and future—from the public domain. *See Mayo Collaborative Servs. v. Prometheus Labs.*, 566 U.S. 66, 88 (2012) (“[T]he underlying functional concern here is a relative one: how much future innovation is foreclosed relative to the contribution of the inventor.”). IPA’s patents are invalid under Section 101.

SUMMARY OF THE ARGUMENT

1. IPA’s patents claim a result disembodied from any specific means of achieving it. Under a string of recent controlling Federal Circuit decisions, such patents, which fail to disclose a specific technical solution for the problem they purport to solve, are patent-ineligible under Section 101. *See, e.g., Affinity Labs of Tex., LLC v. Amazon.com Inc.* (“*Affinity/Amazon*”), 838 F.3d 1266, 1269 (Fed. Cir. 2016) (“[T]he claims do no more than describe a desired function or outcome, without providing any limiting detail that confines the claim to a particular solution to an identified problem.”), *petition for cert. filed* (U.S. Feb. 28, 2017) (No. 16-1047); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351 (Fed. Cir. 2016) (holding that claims “defining a desirable information-based result and not limited to inventive means of achieving the result, fail under § 101”). Because IPA’s patents claim the abstract idea of responding to a spoken request rather than a specific technical solution for achieving that result, they fail at step 1 of the framework established by the Supreme Court in *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014).

2. IPA’s patent claims do not recite any inventive concept necessary to transform their abstract idea into patent-eligible subject matter. Instead, they recite generic computer components and functional steps inherent to the abstract idea itself. Such claims have been uniformly

rejected by courts as uninventive. *See, e.g., Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1316 (Fed. Cir. 2016) (“[W]hen a claim directed to an abstract idea ‘contains no restriction on how the result is accomplished . . .’ then the claim is not patent-eligible.”) (citation omitted); *Affinity/Amazon*, 838 F.3d at 1271 (“The features set forth in the claims are described and claimed generically rather than with the specificity necessary to show how those components provide a concrete solution to the problem addressed by the patent.”); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (“‘[C]onventional steps, specified at a high level of generality,’ [are] insufficient to supply an ‘inventive concept.’”) (citation omitted), *cert. denied*, 135 S. Ct. 2907 (2015). Accordingly, IPA’s patent claims also fail at step 2 of the *Alice* framework and are invalid under Section 101.

STATEMENT OF FACTS

IPA asserts three patents in this case. All three patents are related and share a common specification. The ’021 patent, titled “Navigating Network-Based Electronic Information Using Spoken Input with MultiModal Error Feedback,” was filed on March 13, 2000. The other two are continuations of the ’021 patent. The ’061 patent is titled “System, Method, and Article of Manufacture for Agent-Based Navigation in a Speech-Based Data Navigation System” and the ’718 patent is titled “Mobile Navigation of Network-Based Electronic Information Using Spoken Input.”¹

The patents are directed to the idea of responding to spoken requests. They purport to improve upon the process of electronic searching by allowing users to request information using the spoken word instead of typing a query by adding “a voice-driven front-end atop an existing

¹ Since October 2016, IPA has filed 17 other lawsuits in this district against a disparate group of unrelated defendants, including DISH Network, HTC, Asus Computer, and Sony, asserting at least the ’021 and ’061 patents. 12 of those lawsuits remain pending.

non-voice data navigation system.” (’021 patent at 1:20-25, 1:37-39, 2:12-19.)² In its complaint, IPA asserts claim 1 of the ’718 patent, claim 1 of the ’021 patent, and claim 1 of the ’061 patent. Claim 1 of the ’718 patent is representative:

A method for speech-based navigation of an electronic data source located at one or more network servers located remotely from a user, wherein a data link is established between a mobile information appliance of the user and the one or more network servers, comprising the steps of:

- (a) *receiving a spoken request for desired information from the user* utilizing the mobile information appliance of the user, wherein said mobile information appliance comprises a portable remote control device or a set-top box for a television;
- (b) *rendering an interpretation of the spoken request*;
- (c) *constructing a navigation query* based upon the interpretation;
- (d) *utilizing the navigation query to select a portion of the electronic data source*; and
- (e) *transmitting the selected portion of the electronic data source* from the network server *to the mobile information appliance of the user*.

(emphasis added).

As illustrated above, claim 1 recites the following steps: (1) receiving a spoken request, (2) interpreting the request, (3) retrieving a response to the request, and (4) transmitting the response to the user. The claims do not provide any guidance for how to respond to a spoken request, let alone any specific technology or special programming. The first step requires “receiving a spoken request for desired information from the user” using an unspecified “mobile information appliance.” The claim provides no detail about the claimed “mobile information appliance” other than that it must include one of two generic components: a “portable remote control device” or a “set-top box for a television.”

² As the ’021, ’061, and ’718 patents share a common specification, all citations are to the ’021 patent specification, but the cited passages also appear in the ’061 and ’718 patents.

Next, the claim requires “rendering an interpretation of the spoken request.” This step—interpreting the spoken request to determine the user’s intent so that the system can generate an appropriate response—should be the most important part of the claimed invention. But the claim is silent as to how this “rendering” is achieved. The specification likewise does not provide any specific technical solution. It states that “[p]referably this step includes performing speech recognition in order to extract words from the voice data, and further includes natural language parsing of those words in order to generate a structured linguistic representation of the user’s request.” (’021 patent at 7:14-18.) But this “speech recognition” is performed by the “speech recognition engine,” which is a “commercial quality, speech recognition engine[] [that is] readily available on the market,” such as the then-existing conventional solutions provided by “Nuance Communications” and “IBM.” (*Id.* at 7:19-29.) And the natural language parsing is performed by yet another conventional system that predated the patents, “Gemini Natural Language Understanding System.” (*Id.* at 7:54-62.) In other words, the specification simply suggests implementing the claimed “rendering” using conventional technology in use before the patents.

The claim also does not recite any solution for “constructing a navigation query based upon the interpretation” and using it to “select a portion of the electronic data source.” It is agnostic as to how this step should be accomplished. So is the specification. Indeed, it merely states that the “navigation query” can be any “electronic query, form, series of menu selections or the like” so long as it is “structured appropriately” based on “whatever content and structure is required . . . to access” the data source that “may comprise database(s), Internet/web site(s), or other electronic information repositories.” (*Id.* at 8:55-62; 5:9-10.) The specification ultimately leaves it up to others to use conventional means or invent ways to perform this step. (*Id.* at 9:9-14 (“Practitioners of ordinary skill in the art will be thoroughly familiar with the notion of database navigation through structured query, and will be *readily able to appreciate and utilize the*

existing data structures and navigational mechanisms for a given database, or to create such structures and mechanisms where desired.”) (emphasis added).)

Finally, at the last step, the claim recites “transmitting the selected portion of the electronic data source from the network server” to the user. The preamble to the claim states that the server and the user’s appliance are connected by an unspecified “data link.” The specification explains that this “data link” is simply any generic “two-way electronic communications network” that can be embodied in any “electronic communication infrastructure” including any conventional “hardwired connection,” “wireless connection,” or “any other electronic communications network infrastructure.” (*Id.* at 4:38-52.)

The asserted claims of the other two patents also do not recite any specific technical solution. Claim 1 of the ’021 patent mimics claim 1 of the ’718 patent, only adding two steps in which a user can clarify the spoken request with additional non-spoken input:

A method for speech-based navigation of an electronic data source, the electronic data source being located at one or more network servers located remotely from a user, comprising the steps of:

- (a) receiving a spoken request for desired information from the user;
- (b) rendering an interpretation of the spoken request;
- (c) constructing at least part of a navigation query based upon the interpretation;
- (d) *soliciting additional input from the user*, including user interaction in a non-spoken modality different than the original request without requiring the user to request said non-spoken modality;
- (e) *refining the navigation query, based upon the additional input*;
- (f) using the refined navigation query to select a portion of the electronic data source; and
- (g) transmitting the selected portion of the electronic data source from the network server to a client device of the user.

(emphasis added). As with the other steps, the claim is agnostic as to how the “soliciting” and “refining” steps are accomplished. The specification provides no additional guidance. According to it, the user’s additional input can be solicited through “textual, graphical, audio and/or video media”—basically, anything. (’021 patent at 11:11-14.) The specification similarly does not provide any detail about the claimed “refining,” merely stating that it should be “repeated until no remaining problems or deficiencies are identified” in the original navigation query. (*Id.* at 11:19-22.) Nor does it describe the claimed “client device” with any specificity. Indeed, according to the specification, the claimed invention can be implemented with any “cellular telephone or wireless personal digital assistant” capable of performing the recited functions. (*Id.* at 5:61-63.)

Claim 1 of the ’061 patent also does not recite a specific solution to the problem of responding to spoken requests. It recites the same basic steps, adding generic “agents” to select a portion of the data source and to provide a response to the user:

A method utilizing agents for speech-based navigation of an electronic data source, comprising the steps of:

- (a) receiving a spoken request for desired information from the user;
- (b) rendering an interpretation of the spoken request;
- (c) constructing a navigation query based upon the interpretation;
- (d) routing the navigation query to *at least one agent*, wherein *the at least one agent utilizes the navigation query* to select a portion of the electronic data source; and
- (e) invoking *a user interface agent for* outputting the selected portion of the electronic data source to the user, wherein *a facilitator manages data flow among multiple agents and maintains a registration of each of said agents’ capabilities.*

(emphasis added).

The patent acknowledges, however, that agent-based software was already in use in dis-

tributed computing systems and long predated the patents. (*See* '021 patent at 13:8-11 (referring to and incorporating by reference U.S. patent application Ser. No. 09/225,198, issued as U.S. Patent No. 6,851,115, for the description of agents, which explicitly acknowledges at 4:18-55 that agent-based software was in use before the patents).) And the claimed unspecified “facilitator” is merely a black box that tracks the “agent’s capabilities.” ('021 patent at 13:11-13.)

The other—unasserted—claims in IPA’s patents are of similar scope and similarly lack a specific technical solution. The unasserted independent claims are directed to the same high-level functions, performed by either generic and unspecified computer “code segment[s]” (*see, e.g.,* '718 patent, cl. 10; '061 patent, cl. 7; '021 patent, cls. 46, 109) or “logic” (*see, e.g.,* '718 patent, cl. 19; '061 patent, cl. 13; '021 patent, cls. 27, 90).

And the unasserted dependent claims add nothing of substance to the independent claims. Some recite different, but equally generic, computing and communications components to perform the steps in the independent claims, such as a conventional “wireless telephone” ('718 patent, cls. 7, 16, 25), conventional “portable computing device” (*id.*, cls. 8, 16, 26), conventional “personal digital assistant” (*id.*, cls. 9, 18, 27), conventional “cellular” or “wireless” telephone systems (*id.*, cls. 5, 14, 23), “one or more [network] servers” (*id.*, cls. 11, 20), and the use of a generic “web page” as a “data source” ('061 patent, cls. 6, 12, 18). Others recite variations of the same generic functions described above, such as “solicit[ing] additional input from the user” ('718 patent, cls. 4, 13, 22; '061 patent, cls. 4, 10, 16), using “agents” to perform speech recognition, parsing, and other claimed functions ('061 patent, cls. 2-3, 5, 8-9, 11, 14-15, 17), “selecting from among a plurality of candidate electronic data sources,” ('021 patent, cl. 25), and performing the steps “with respect to” multiple users or client devices ('718 patent, cls. 6, 15, 24; '021 patent, cls. 24, 61, 87, 124).

None of the claims of the asserted patents recites a specific technical solution for the

claimed idea of responding to a spoken request. Instead, they claim a result in purely functional terms and are agnostic as to how that result is achieved. Indeed, the specification boasts that the claimed functions may be implemented “on any number of different hardware and software computing platforms and environments” or “various combinations thereof.” (’021 patent at 6:55-58.)

ARGUMENT

Under Section 101 of the Patent Act, “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. As the Supreme Court has long recognized, “this provision contains an important implicit exception” for abstract ideas, laws of nature, and natural phenomena, which form the “basic tools of scientific and technological work.” *Alice*, 134 S. Ct. at 2354 (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). The “abstract ideas” category embodies “the longstanding rule that ‘[a]n idea of itself is not patentable.’” *Id.* at 2355 (quoting *Gottschalk v. Benson*, 409 U.S. 52, 67 (1972)). The reason for this rule is important: “[M]onopolization of [ideas] through the grant of a patent might tend to impede innovation more than it would tend to promote it.” *Mayo Collaborative Servs.*, 566 U.S. at 71. Accordingly, they belong to the “storehouse of knowledge . . . free to all . . . and reserved exclusively to none.” *Bilski v. Kappos*, 561 U.S. 593, 602 (2010) (citation omitted).

The Supreme Court has adopted a two-step approach for determining patent eligibility under Section 101. *Alice*, 134 S. Ct. at 2355. First, a court must ask whether the claims are directed to a patent-ineligible concept, such as an abstract idea. *Id.* The Supreme Court has expressly declined to “delimit the precise contours of the ‘abstract ideas’ category,” *id.* at 2357, and the Federal Circuit has found a wide range of claims directed to abstract ideas. *See, e.g., Intel-*

lectual Ventures I, 838 F.3d at 1329 (claims directed to virus screening); *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607 (Fed. Cir. 2016) (claims directed to collecting and storing information about a digital image and transmitting to a server where the information can be accessed by a user); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343 (Fed. Cir. 2015) (avoiding data loss); *Affinity/Amazon*, 838 F.3d at 1269 (delivering user-selected media content to portable devices). Second, the court must decide whether the claims add an “inventive concept”—“an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [concept] itself.’” *Alice*, 134 S. Ct. 2355 (quoting *Mayo*, 566 U.S. at 73). Unless these additional elements add something significant to the abstract idea, the claim is ineligible. *Id.* Merely implementing a naked idea using well-known computer components or functions, limiting the idea to a particular technological environment, or adding other token steps is insufficient. *Id.* at 2357-59; *see also, e.g., Bilski*, 561 U.S. at 610-11; *Ultramercial*, 772 F.3d at 714.

I. IPA’S PATENT CLAIMS ARE DIRECTED TO THE IMPERMISSIBLY ABSTRACT IDEA OF RESPONDING TO A SPOKEN REQUEST.

At step 1, courts examine the claim as a whole to determine whether its “character” or “focus” is an abstract idea. *Elec. Power Grp.*, 830 F.3d at 1353. In doing so, courts consider whether the claims are directed to “‘a specific means or method that improves the relevant technology’ or are ‘directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.’” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016) (quoting *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016)). Patents that do not claim a particular way of carrying out an invention, but instead “merely claim the resulting systems” or “are directed to certain functionality” are invalid. *Id.*

Here, the patents are directed to the abstract idea of responding to a spoken request. They claim methods and systems for “speech-based navigation of an electronic data source,” but fail to

recite any specific solution for achieving this result. Instead, they list basic computing functions—such as “receiving,” “rendering,” “transmitting”—untethered to any specific way of achieving them. Indeed, stripped of the token references to generic computing technology, the functional nature of the claims captures the age-old ideas of asking for driving directions, requesting a librarian to find a book, or inquiring about product availability from a customer service representative. *See, e.g., Intellectual Ventures I LLC v. Erie Indem. Co.*, No. 2016-1128, 2017 U.S. App. LEXIS 3982, at *21-23 (Fed. Cir. Mar. 7, 2017) (claims requiring “locating information in a database” and “using an index that includes [XML] tags and metafiles to locate the desired information” were abstract because they were equivalent to a “hardcopy-based classification system (such as library-indexing system)” and focused on that idea rather than “an improvement in the technology of computer databases”); *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (finding claims relating to “concept[s] of data collection, recognition, and storage” to be abstract because “humans have always performed these functions”), *cert. denied*, 136 S. Ct. 119 (2015). These age-old ideas are not patentable inventions, and neither are IPA’s claims that claim mere results with no specific technical solutions for achieving them.

For example, claim 1 of the ’718 patent recites: “receiving a spoken request” from a user, “rendering an interpretation” of that request, “constructing” and “utilizing” a search “query” to obtain a response to the request, and “transmitting” the response back to the user. (’718 patent at 15:30-42.) It is agnostic as to how any of these steps should be accomplished. Claim 1 of the ’061 patent and claim 1 of the ’021 patent are no better. They likewise claim the same abstract idea, recite a nearly identical set of basic computing functions, add more basic computing functions, and lack any specific technical solution for achieving any of them or the overall claimed result. For example, claim 1 of the ’021 patent adds “soliciting additional input from the user”

and “refining the navigation query” based on this input. Both functions are untethered from any way of accomplishing them. Both are only results. And claim 1 of the ’061 patent merely introduces the notion of “agents”—which, according to the specification itself, were conventional before the patents—and a black box called “facilitator” that “manages” and “maintains” them in an unspecified manner.

The Federal Circuit has repeatedly rejected such result-focused claims, which “do no more than describe a desired function or outcome, without providing any limiting detail that confines the claim to a particular solution.” *Affinity/Amazon*, 838 F.3d at 1269; *see also Elec. Power Grp.*, 830 F.3d at 1354 (invalidating claims that did not describe “any particular assertedly inventive technology for performing [the claimed] functions”); *Internet Patents Corp.*, 790 F.3d at 1348 (invalidating claims to a result with “no restriction on how the result is accomplished”); *Apple, Inc.*, 842 F.3d at 1241, 1244-45 (invalidating claims, including those directed to “voice capture,” because they “merely claim the resulting systems” without “a particular way of programming or designing the software to create” them). Indeed, just this week the Federal Circuit confirmed the well-established rule: claims directed to a result that fail to recite a specific technical solution for accomplishing it are not patent eligible. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, No. 2016-1077, 2017 U.S. App. LEXIS 3983, at *21 (Fed. Cir. Mar. 7, 2017) (“Indeed, the claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it. Our law demands more.”).

In *Affinity Labs of Texas, LLC v. DIRECTV, LLC* (“*Affinity/DIRECTV*”), the Federal Circuit invalidated claims directed to a broadcast system in which a cellular telephone located outside the range of a regional broadcaster receives content from the broadcaster in response to a user selecting that content for streaming. 838 F.3d 1253, 1256 (Fed. Cir. 2016), *petition for cert. filed* (U.S. Feb. 27, 2017) (No. 16-1046). The Federal Circuit found that the claims were di-

rected to an abstract idea “that is untethered to any specific or concrete way of implementing it.” *Id.* at 1258. Just like the claims of IPA’s patents, Affinity’s claims were “entirely functional in nature.” *Id.*

The patent in *Affinity/Amazon* claimed a method and system for managing a library of media content on a website, streaming that content to a mobile device, and permitting a user to access and modify the media library using the mobile device. 838 F.3d at 1269. The Federal Circuit found the claims to be directed to the abstract idea of “streaming user-selected content to a portable device” because they “d[id] no more than describe a desired function or outcome, without providing any limiting detail that confine[d] the claim to a particular solution to an identified problem.” *Id.* at 1269, 1272. “The purely functional nature of the claim[s] confirm[ed] that [they were] directed to an abstract idea, not to a concrete embodiment of that idea.” *Id.* at 1270. And the tangible components of the claimed system were “described and claimed generically rather than with the specificity necessary to show how those components provide[d] a concrete solution to the problem addressed by the patent.” *Id.* at 1271.

And in *Apple Inc. v. Ameranth, Inc.*, the Federal Circuit invalidated claims directed to generation of computer menus including those that can be modified by handwriting or voice recognition. The court found that the claims “call[] for the desired result” and do[] not attempt to claim any method for achieving that result.” *Apple, Inc.*, 842 F.3d at 1244. The Federal Circuit explained that claiming the “use of existing handwriting and voice capture technologies” “without providing how these elements were to be technologically implemented” does not render the claims patentable. *Id.* at 1245. The claims of IPA’s patents similarly fail to articulate any concrete solution for responding to a spoken request. That failure is all the more glaring here because the result they claim but do not solve—understanding and responding to a spoken request—is one of the most difficult and fundamental problems in the history of computer science.

By contrast, claims that have been upheld by the Federal Circuit under Section 101 have all provided a specific technical solution—something IPA’s patent claims fail to do. For example, in *Enfish, LLC v. Microsoft Corp.*, the claims disclosed a new “self-referential” data structure and a specific “four-step algorithm” to accomplish their claimed improvement to computer databases. 822 F.3d 1327, 1336-37 (Fed. Cir. 2016). In *McRO*, the claims disclosed a specific set of rules “defin[ing] morph weight sets as a function of the timing of phoneme sub-sequences” to improve three-dimensional computer animation. *McRO, Inc.*, 837 F.3d at 1313. And in *DDR Holdings*, the claims recited a specific series of steps to create an unconventional hybrid webpage in order to solve the problem host websites faced with retaining visitors who clicked on products sold on third-party websites. *DDR Holdings, LLC v. Hotels.com L.P.*, 773 F.3d 1245, 1257-58 (Fed. Cir. 2014). These decisions reaffirm the rule that to be patent-eligible, claims must be limited to a specific technical solution for achieving the claimed result. IPA’s patents fail to claim a specific technical solution. Instead, they impermissibly claim an abstract idea—responding to a spoken request—in entirely functional terms. They fail step 1 of the *Alice* test.

II. IPA’S PATENT CLAIMS DO NOT DISCLOSE AN “INVENTIVE CONCEPT” SUFFICIENT TO TRANSFORM THEIR INELIGIBLE ABSTRACT IDEA INTO A PATENT-ELIGIBLE INVENTION.

Because IPA’s patent claims are directed to the abstract idea, the Court must “determine whether [they] contain[] an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357 (quoting *Mayo*, 566 U.S. at 72). Neither “generic” computer technology, nor “well-understood, routine, conventional” or “purely functional” elements can supply the required inventive concept. *Id.* at 2357-59 (quoting *Mayo*, 566 U.S. 73, 77, 82). Rather, to provide an inventive concept, IPA’s patents must claim a “technology-based solution (not an abstract-idea-based solution implemented with generic technical components in a conventional way).” *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1351 (Fed. Cir. 2016).

**A. The Claims' Reference to Well-Known
and Conventional Technology Does
Not Provide an Inventive Concept.**

The claims of IPA's patents simply recite the abstract idea of responding to a spoken request in purely functional terms using conventional technology. They are not inventive. For example, claim 1 of the '718 patent recites a "mobile information appliance" connected via a "data link" to "network servers" with an "electronic data source." ('718 patent at 15:25-29.) The claims and the specification make clear that all of these are conventional. The "mobile information appliance" of the claim is any generic mobile device that has a "portable remote control device" or a "set-top box for a television"—both are existing and conventional components. (*Id.* at 15:32-34.) The "network servers" are no more than generic servers. The "data source" "may comprise database(s), Internet/web site(s), or other electronic information repositories" and store any "electronic information." ('021 patent at 5:8-13.) And the "data link" is a connection via any generic communications network (hardwired, wireless, or cellular). (*Id.* at 4:38-52.) The "rendering" step is similarly non-inventive. As noted above, the claim does not provide any detail about how the claimed rendering is achieved. And the specification makes clear that the "speech recognition" required for the claimed rendering step relies on existing software that predated the patents. (*Id.* at 7:20-22 ("Speech recognition" step carried out using "[a] variety of commercial quality, speech recognition engines . . . readily available on the market") (emphasis added); 7:54-8:1 (describing pre-existing "Gemini Natural Language Understanding System" for parsing the spoken request).) In any event, such references to generic and existing speech recognition technology cannot supply an inventive concept. *Apple, Inc.*, 842 F.3d at 1245 (finding claims that "refer[red] to the use of . . . voice capture technologies without providing how these elements were to be technologically implemented" were non-inventive).

Claim 1 of the '021 patent relies on the same components, except instead of a "mobile information appliance," it recites the even more generic "client device." The specification de-

scribes this “client device” as a conventional “television monitor or similar audiovisual entertainment device” or any generic “cellular telephone or wireless personal digital assistant.” (’021 patent at 5:61-62, 4:27-31.) None of these elements is even arguably inventive. They are merely generic environments in which to perform the abstract idea. *See TLI*, 823 F.3d at 614 (“telephone unit” and “server” not transformative because the components “simply provide[] the environment in which the abstract idea of classifying and storing digital images in an organized manner is carried out”); *Elec. Power Grp.*, 830 F.3d at 1355 (computers, networks, and display components not inventive).

The generic “agents” and “facilitator” elements of claim 1 of the ’061 patent are similarly uninventive. The “agents” are claimed solely by their function. (’061 patent at 15:30-33 (“at least one agent utilizes the navigation query to select a portion of the electronic data source”).) And the specification makes clear that the “agents” are conventional software components. (’021 patent at 13:8-11.) The claim likewise describes the “facilitator” in purely functional terms. (’061 patent at 15:35-37 (facilitator “manages” and “maintains” in some unspecified way).) These elements are not inventive. *Apple, Inc.*, 842 F.3d at 1241-42 (finding components to be conventional where the specifications “describe[d] the hardware elements of the invention as ‘typical’ and the software programming needed as ‘commonly known’”).

The dependent claims fare no better. Some merely repeat functional result-oriented steps already recited in independent claims. (*Compare, e.g.*, ’718 patent, cls. 4, 13, 22 and ’061 patent, cls. 4, 10, 16, *with* ’021 patent, cl. 1 (all reciting variations of “soliciting additional input from the user” and “refining the navigation query” based on the user’s input).) Others vary which generic technology is used—be it a cellular telephone system, wireless telephone, personal digital assistant, portable computing device, or coaxial cable, DSL, satellite, wireless/cellular, or fiber optic infrastructure. (*See, e.g.*, ’718 patent, cls. 2-3, 5, 7, 8-9, 12, 14, 16-18, 21, 23, 25-27;

'021 patent, cl. 45.) *Affinity/DIRECTV*, 838 F.3d at 1264 (“[T]he dependent claims . . . all recite functions that are not inventive but simply constitute particular choices from within the range of existing content or hardware . . .”). None of the dependent claims discloses a concrete solution that transforms the basic abstract idea into a patent-eligible invention.³

B. The Claims Also Lack Any Inventive Ordered Combination.

Nor do the claims recite any inventive combination of steps or components. The recited functional steps are inherent to the basic concept of responding to a spoken request from a user. The request must first be received and interpreted. A response must then be identified and transmitted back to the user. These steps are conventional both individually and as an ordered combination. And the concept of generic devices communicating via generic connections with network servers hosting data is inherent in any network communication and is the building block of the World Wide Web that predates the patents. (*See, e.g.*, '021 patent at 2:19-22.) There is nothing specific about the arrangement of these generic components in the claims. Indeed, the specification itself boasts that the claimed functions may be “divide[d] and allocate[d]” in unspecified ways “between client and server.” (*Id.* at 6:41-43.) IPA’s patents do not claim any inventive ordered combination. *Content Extraction*, 776 F.3d at 1348 (finding that “well-understood, routine, and conventional activities commonly used in industry” do not provide an “inventive concept”); *cf. Bascom*, 827 F.3d at 1350 (claims recited inventive concept because

³ This Court can evaluate representative claims for purposes of determining eligibility under Section 101 without separately analyzing every single independent or dependent claim. *See, e.g., Elec. Power Grp.*, 830 F.3d at 1351-52 & n.1 (evaluating a representative claim for the asserted claims of the three patents-in-suit). Indeed, in *Content Extraction*, the district court found 242 claims from four patents ineligible under Section 101 based on its analysis of two representative claims, even where the parties had not agreed beforehand on the set of representative claims. *Content Extraction*, 776 F.3d at 1344, 1348. The Federal Circuit rejected the patentee’s contention that the district court erred by failing to address each claim individually, finding that such an analysis was “unnecessary.” *Id.* at 1347-48.

“they recite[d] a specific discrete implementation of the abstract idea” that was a “technical improvement over prior art”). IPA’s patent claims fail step 2 of the *Alice* test.

III. IPA’S PATENT CLAIMS ARE UNDULY PREEMPTIVE.

The Supreme Court has consistently identified preemption as the “concern that undergirds our § 101 jurisprudence.” *Alice*, 134 S. Ct. at 2358; *see Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“[Q]uestions on preemption are inherent in and resolved by the § 101 analysis.”), *cert. denied*, 136 S. Ct. 2511 (2016). “[T]he underlying functional concern . . . is a relative one: how much future innovation is foreclosed relative to the contribution of the inventor.” *Mayo*, 566 U.S. at 88. Here, the patents contribute nothing to the public store of knowledge. They claim a result without any specific means of achieving it. And not only do they attempt to cover technologies that were commonly used before the patents, such as readily-available speech recognition engines and natural language processing systems (*see, e.g.*, ’021 patent at 7:19-29, 7:56-62), but they also attempt to capture all “hardware and software computing platforms and environments and various combinations thereof” and “database structures and navigational mechanisms” yet to be devised by others. (*See, e.g., id.*, at 6:55-58, 9:9-14.)

As described above, leading innovators have spent decades researching how to program computers to respond to spoken requests and have made massive investments in the development of actual inventions and solutions for the public. IPA’s patents claim the end-result of their efforts and seek to reap the rewards of their hard work, while contributing nothing to the public store of knowledge. As the Supreme Court held long ago, a claim to the result itself no matter how achieved would thwart innovation and stymie the development of new and improved solutions. *See O’Reilly v. Morse*, 56 U.S. 62, 113 (1853). Rather than disclosing a specific technological solution worthy of patent protection, the patents instead unduly preempt a wide range of existing technologies and future discoveries. They are ineligible under Section 101.

CONCLUSION

The patents IPA asserts in this action are invalid for claiming the patent-ineligible abstract idea of responding to a spoken request. Accordingly, Amazon respectfully requests that the Court dismiss IPA's complaint with prejudice under Rule 12(b)(6) of the Federal Rules of Civil Procedure.

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Respectfully submitted,

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